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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,438	12/27/2001	John D. Maxfield	5253-05201	1506

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EXAMINER

BLACK, LINH

ART UNIT PAPER NUMBER

2167

DATE MAILED: 02/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/034,438	MAXFIELD, JOHN D.	
	Examiner	Art Unit	
	LINH BLACK	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-32 is/are pending in the application.
- 4a) Of the above claim(s) 1-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is in response to the amendment dated 1/26/05. Claims 1-17 are cancelled. New claims 18-32 are pending. Claims 18 and 28 are independent claims.

Claim Rejections - 35 USC § 112

Claims 20-21 and 29-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation "minus" is not found in the specification.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

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applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 18-19, 22, 25-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Iyer et al. (USP 6411964).

3. Iyer et al. teach the independent claims 18 and 28 by the following:

identifying a first range of key values associated with a first set of rows in a tablespace – fig. 4, elements 400-404: clustering index; col. 4, lines 5-31; col. 6, lines 6-63; col. 12, lines 8-24.

assigning first values to each of a plurality of free space management parameters associated with the first range of key values – col. 6, lines 6-63; col. 7, lines 11-36; fig. 11, element 1126; col. 17, lines 49-60.

identifying a second range of key values associated with a second set of rows in the tablespace; assigning second values to each of a plurality of free space management parameters associated with the second range of key values, wherein the second values differ from the first values by at least one free space management parameter value – col. 6, lines 7-62, especially lines 37-44. col. 7, lines 11-36; fig. 11, element 1126; col. 17, lines 49-60 (in which Desired Page D_P is calculated based on the size of R, page size, desired frequency of free pages, desired percent of free space per page, etc. , and the procedure CLUSTER_RECORD being called with the RID of R and D_P as its parameters); col. 22, lines 41-66 (wherein a user has a position (key value) in a key range of the index or relevant subset of the index 110 is scanned; creating DL 800

structures (indices 802 etc.); Correct the composite RID list according to the composite DL 800.

managing free space associated with the first set of rows in accordance with the first values; and managing free space associated with the second set of rows in accordance with the second values - col. 4, lines 17-31; col. 6, lines 37-62; col. 10, lines 15-63.

4. Iyer et al. anticipated claim 19 by the following:

wherein the first set of rows are associated with a first table in the tablespace and the second set of rows are associated with a second table in the tablespace – col. 4, lines 5-43; col. 6, lines 7-25.

5. Iyer et al. anticipated claim 22 by the following:

wherein one or more of the free space management parameters are selected from the group consisting of "free page value", "free pages value", "percent free value", "end of key range number of free pages", and "maximum number of rows" – col. 5, lines 24-34; col. 6, lines 26-36; col. 11, lines 8-17; col. 17, lines 49-52; col. 22, lines 41-66.

6. Iyer et al. anticipated claim 25-27 by the following:

wherein the first set of rows in a tablespace comprise rows in a data table or an index;

wherein the second set of rows in a tablespace comprise rows in a data table or an

index; and wherein the first sets of rows and the second set of rows comprise rows from a single table – col. 4, lines 5-42; col. 6, lines 6-62.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claim ~~5~~ is rejected under 35 U.S.C. 103(a) as being unpatentable over Iyer et al. (USP 6411964), and further in view of Eberhard et al. (USP 6003022).

8. As per claim 23, Iyer et al. does not explicitly suggest: wherein the act of assigning first values to each of a plurality of free space management parameters comprises accepting user input for at least one of the first values, second values. However, Eberhard et al. teach database execution cost and system performance estimator –

the abstract. Eberhard et al. teach accepting user input for at least one of the first values – col. 7, lines 35 to col. 8, line 5. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Iyer et al.'s teaching with Eberhard et al.'s teaching in order to allow more flexible utilization of free spaces, which is more appropriately changed to different usage environments.

Response to Arguments

9. Applicant's arguments filed 5/12/04 have been fully considered but they are not persuasive. The limitation "non-uniform management of free space in a table space" is not in the claims' language.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LINH BLACK whose telephone number is 571-272-4106. The examiner can normally be reached on 8am - 5pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN BREENE can be reached on 571-272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



February 21, 2005

LINH BLACK
Examiner
Art Unit 2167


Primary Examiner